

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
AGC 220

Department of Crop Science
BSc Agricultural Science (Honours) Part II Examination

3 HOURS (100 Marks)

Principles of Crop Production

INSTRUCTIONS

NOV 2024

Answer any **FOUR** questions. Each question carries **25 marks**.

1. a) Discuss the external factors affecting crop production. [15 marks]
b) Outline any five factors to be considered when selecting land for cultivation. [10 marks]
2. a) Outline plant classification according to the following;
i. Life cycle, [3 marks]
ii. Sexual expression, [3 marks]
iii. Climatic adaptation, [4 marks]
iv. Water requirement, [4 marks]
v. Binomial system of nomenclature. [6 marks]
b) Distribution of rainfall can be assessed using the Pentad Analysis. Explain how this criterion is used. [5 mark]
3. Discuss the contribution of the following climatic factors on crop production.
a) Temperature, [5 marks]
b) Solar radiation, [5 marks]
c) Wind, [5 marks]
d) Rainfall, [5 marks]
e) Relative humidity. [5 marks]
4. Discuss the following terms and their relevance to irrigation systems.
a) Crop factor, [5 marks]
b) Total available moisture, [5 marks]
c) Soil type, [5 marks]
d) Root depth, [5 marks]
e) Evaporation pan. [5 marks]
5. Discuss factors that affect weed-crop competition. [25 marks]
6. Discuss any five factors limiting biological nitrogen fixation in crop production. [25 marks]

End of Exam Paper